

In the Specification

The following is a marked up version of the amended specification wherein strikethrough denotes deletions and underlining denotes additions.

-Page 2, lines 14-19

Another problem arises when a user receives a video-on-demand title but either stops, pauses, or otherwise prematurely interrupts or terminates presentation of the title. The problem pertains to the ~~to~~ previously allocated bandwidth within the cable or satellite television system and the fact that it may be reserved for the user even during the time the user is not actually viewing the rented title. In order to free resources for more users attempting to view rented titles at the same time, a need exists for efficiently managing allocated network bandwidth and handling user inactivity.

-Page 3, lines 22-23

FIGS. 5 and 6 are flow chart diagrams of the user interface flow for providing the MOD service in the ~~network~~ system depicted in FIG. 1.

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FIG. 17 is a display diagram of the MOD service problem barker presented to the user informing ~~of~~ the user of a problem in the delivery of the purchased MOD title from the MOD title catalog screen in FIG. 8A.

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FIG. 21 is a diagram of a non-limiting example of a sequence of still screens that may comprise a screen saver operation that ~~operate~~ operates as described in FIG. 20.

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FIG. 2. is a block diagram of the headend 11 as configured in the cable television system network to provide media-on-demand (MOD) services. MOD application server 19 is responsible for provisioning the services provided by the MOD application, as directed by the system operator, and for providing the content or data needed by the MOD application client that executes on the DHCT 16. Provisioning is the process that defines the MOD application's services, including the reservation and configuration of system resources

needed to provide those services, and the capability to bill for such services. MOD application server 19 and a plurality of other application servers ~~14~~ 20 are connected to a digital network control system (DNCS) 23 via an Ethernet connection 32.

The DNCS 23 provides complete management, monitoring, and control of the network's elements and broadcast services provided to users. The DNCS 23 uses a data insertion multiplexor 29 and a data QAM 30 to insert the in-band BFS data into an MPEG-2 transport stream. The DNCS 23 also contains a Digital Storage Media – Command-in-Control (DSM-CC) ~~34~~ session and resource manager 34 that works with other components of the DNCS 23 in order to support the delivery of the MOD service to the user. The DSM-CC session and resource manager processes user to network (U-N) session signaling messages, manages allocation of session-related network resources and supports network management operations. The DSM-CC session manager 34 (FIG. 2) supports exclusive services such as MOD by providing the signaling interface to establish, maintain and release client initiated exclusive sessions. The DSM-CC session manager 34 acts as a point of contact to the network for the DHCT's in the network 18 to establish individual sessions. The DSM-CC session manager 34 also defines a resource descriptor structure, which is used to request the network resources within a session.

The MOD application server 19 communicates via the Ethernet connection 32 to a service application manager (SAM) server 25 contained on the DNCS 23. The SAM 25 provides a model in which the user can access services available on the system. A service consists of an application to run and a parameter, such as data content, specific to that service. The SAM 25 handles the lifecycle of the applications on the system, including the definition, initiation, activation, suspension and deletion of services they provide and the downloading of the application into the DHCT 16. Many services can be defined using the same application component, with different parameters. The MOD application server 19 defines its application to the SAM server 25 and the SAM server 25 instructs a broadcast file system (BFS) server 28 to add the MOD application client executable code to the carousel (not shown) for distribution to the various DHCTs 16 in the network 18.

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FIG. 3 is a block diagram illustrating the DHCT 16 coupled to headend 11 discussed above with other system equipment. The DHCT 16 is typically situated within the residence or business of a user. It may be integrated into an output device that has a display 31, such as a television set, or it may be a stand-alone unit that couples to an external display 31, such as a display included with a computer or a television, and that processes media transported in television signals for presentation or playback to a subscriber (user of the DHCT). The display device also includes audio output equipment. In a non-limiting example, the display 31 includes a hi-fi stereo for digital quality music reproduction. The DHCT 16 preferably comprises

a communications interface 33 for receiving the RF signals, which can include media such as video, audio, graphical and data information, from the tap 15 and for providing any reverse information to the tap 15 for transmission back to the headend 11 (FIG. 1). The DHCT 16 further includes at least one processor 35 for controlling operations of the DHCT 16, including a video output port such as an RF output system 36 for driving the display 31, a tuner system 37 for tuning into a particular television channel to be displayed and for sending and receiving data corresponding to various types of media from the headend 11. The tuner system 37 includes in one implementation, an out-of-band tuner for bi-directional quadrature phase shift keying (QPSK) data communication and a quadrature amplitude modulation (QAM) tuner for receiving television signals. Additionally, DHCT 16 includes a receiver 39 for receiving externally-generated information, such as user inputs or commands for other devices. The DHCT 16 may also include one or more wireless or wired interfaces, also called ports, for receiving and/or transmitting data to other devices. For instance, the DHCT 16 may feature USB (Universal Serial Bus), Ethernet (for connection to a computer), IEEE-1394 (for connection to media devices in an entertainment center), serial, and/or parallel ports. The user inputs may, for example, be provided by a computer or transmitter with buttons or keys located either on the exterior of the terminal or by a hand-held remote control device 40 (~~also~~ FIG. 7) or keyboard that includes user-actuated buttons.

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The SAM, as discussed above, includes a SAM server 25 (FIG. 2) in headend 11 and a SAM client ~~37~~ 38 in the DHCT 16. The SAM client ~~37~~ 38 is a part of the platform library 48. As a non-limiting example, an application to tune video programming could be executed with one set of parameters to view HBO and a separate set of parameters to view CNN. Each association of the application component (tune video) and one parameter component (HBO or CNN) represent a particular service that has a unique service ID.

-Page 8, lines 5-30

The applications that are stored in the DRAM 44 may be applications that are loaded when the DHCT 16 initializes or are applications that are downloaded to the DHCT 16 upon a user-initiated command using an input device such as the remote 40. In this non-limiting example, as shown in FIG. ~~2~~ 3, DRAM 44 contains the following application clients: an e-mail application client 59, a digital music application client 61, a service guide application 63 and a media-on-demand application client (MOD) 65 (discussed in more detail below). It should be clear that these applications are not limiting and merely serve as examples for this present embodiment of the invention.

The applications shown in FIG. 3 and all others provided by the cable system operator are top level software entities on the network for providing services to the user. In one implementation, all applications executing on the DHCT 16 work with the navigator 51 by abiding by several guidelines. First, an application utilizes and implements the SAM client ~~37~~ 38 for provisioning, activation, and suspension of services. Second, an application shares DHCT 16 resources with other applications and abide by the resource management policies of the SAM client ~~37~~ 38, the operating system 46, and the DHCT 16. Third, an application handles all situations where resources are unavailable without navigator 51 intervention. Fourth, when an application loses service authorization while providing a service, an application should suspend the service gracefully. The navigator 51 will reactivate an individual service application when it later becomes authorized. Finally, an application is configured so it does not respond to input commands reserved for the navigator 51. For instance, as a non-limiting example, when user input commands are entered via a wireless remote control device or keyboard 40, the application is configured so it does not have access to certain user input keys that are reserved by the navigator 51 (i.e., power, channel +/-, volume +/-, etc.). However, without any limitations to the aforementioned, in certain circumstances certain applications during the course of program execution may reach a machine-state in which input keys that would ordinarily be reserved may be employed for input by the application but mainly during that particular machine-state. For instance, an application may display a user interface that specifically requests input or selection from the user in which one or more of the reserved keys are used momentarily during that machine-state.

-Page 8, line 35 through page 9, line 13

To provide the MOD service to the user, the MOD application client 65 interacts with the MOD application server 19 (FIG. 2) and other elements in the headend 11 to provide the on-demand service, such as the VOD content server 22. Before describing the MOD application operation itself, some of the system infrastructure used by the MOD application to provide the MOD services will be described. While the network platform to support video-on-demand is not the subject of this invention, the method in which the MOD application utilizes this platform is novel. FIGS. 4A – 4M are flow diagrams that define the signaling interactions between the DHCT 16, the DNCS 23, the MOD application server 19, and the VOD content server 22 to set up, maintain, and tear down VOD sessions.

The first signal and scenario, as shown in step 71 in FIG. 4A, is the DHCT initialization scenario. The DHCT 16 requests a configuration 73 from the network 18 (FIG. 1), and if the DHCT 16 is verified as an authorized device on the network 18, the DNCS 23 (FIG. 2) sends back a confirmation 74 with the parameters for the DHCT 16 to operate on a network 18. This scenario 71 is performed automatically whenever a DHCT 16 is connected to the network. The MOD application client 65 is not responsible for performing initialization; however, the operating system 46 provides an application programming interface

(API) which allows an application to query configuration parameters received in the U-N ConfigConfirm message 74.

-Page 9, line 32 through page 10, line 4

FIG. 4E is a diagram of the steps to establish a MOD session. The DHCT 16 initially sends a message 91 to the DNCS 23 that initializes a session request. The request 91 usually happens after the MOD application client 65 has allowed the user to select a title that the user wishes to rent or purchase. Information about the on-demand media and any other application specific information is passed from the MOD application client 65 to the VOD content server connection manager in the VOD server session setup indication message 93. This setup indication message 93 is not modified by the DNCS 16, but is merely passed straight to the MOD application server 19. When the MOD application server 19 receives the session setup indication message 93, it verifies the eligibility of the DHCT 16 and the service that is being requested. The DNCS 23 may send the DHCT 16 a session proceeding indicating message 94.

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Another signaling scenario supported by the present invention is the VOD content server 22 in-progress scenario. FIG. 4F is a display diagram 110 depicting the MOD application server in progress request-~~111~~ message 111 communicated from the VOD content server 22 to the DNCS 23. The DNCS 23 uses this message 111 as an audit mechanism to determine if it is in sync with the VOD content server 22. The MOD application server periodically sends this MOD application server session in progress message 111 to the DNCS 23. The message 111 contains a list of all active sessions for that MOD application server, and the DNCS 23 compares this list to its list of active sessions for that particular application server 23. The DNCS 23 takes appropriate action if the lists do not match.

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A session tear down scenario may also be initiated by the MOD application server 19. FIG. 4I is a display diagram 127 of the process for a VOD content server 22 to tear down a session. The VOD content server 22 issues a server release request 129 to the DNCS 23 after it has stopped using all resources for a particular session that it is attempting to tear down. The DNCS 23 initiates a client release indication message 131 to the MOD application client 65 on the DHCT 16 which is responded to in the form of a client release response 133. The DNCS 23 then initiates a server release confirm message 134 to the VOD content server 22 that initiated the tear down scenario. The network 18 does not release the resources for the MOD session until the client release response message 133 is received by the DNCS 23.

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The VOD content server 22 provides an API by which the application servers can register interest in session setup and tear down events. Events describing these events are sent to registered application servers and include the session ID and the user (application) data contained in the session setup request, such as the MAC address of the DHCT 16, the title ID, and the rental option in the case of the MOD application. In this way the MOD application server 19 can be notified when a VOD session is established with the VOD content server 21 by the MOD application client 65. Additionally, the MOD application server 19 may use the API to request that the VOD content server 22 tear down the session if the user of the DHCT 16 is not authorized for the MOD service for billing reasons. The DHCT 16, the VOD content server 22, and the DNCS 23 may each initiate a session status scenario to determine the status of both the network and the other components described above. FIG. 4K is a display diagram 150 of a client initiated session status scenario. This procedure is used by DHCT 16 to query the DNCS 23 for the sessions that the DNCS 23 is maintaining for that DHCT 16. This procedure is also used to obtain detailed information about a session so that the DHCT 16 may re-establish a session after a reboot. The DHCT 16 initiates a client status request message 152 to the DNCS 23 to determine the status of the network 18. The DNCS 23 responds with a client status confirm message 154 reporting the status to the DHCT 16.

FIG. 4L is a display diagram 156 of a VOD content server 22 initiated session status request scenario. This procedure is used by a VOD content server 22 to query the DNCS 23 for sessions that the DNCS 23 is maintaining for that VOD content server 22. This procedure is also used to obtain detailed information about a session so that the MOD application server 19 may re-establish sessions after a reboot. In this case, the VOD content server 22 sends a service status request message 158 to the DNCS 23 to determine the status of the network 18. The DNCS 23 in this case responds with a service status confirm message 159 reporting on the status of the network 18.

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Returning to FIG. 5, when the user tunes to the MOD channel, the navigator 51 asks the SAM ~~37~~ 38 for the service mapped to the channel, which is a service provided by the MOD application. The navigator 51 then uses the SAM ~~37~~ 38 to activate the MOD service. If the MOD application client 65 is not resident in the memory of the DHCT 16, the SAM 37 uses facilities of the operating system to download the MOD application client 65 using the BFS client 43. Once loaded in DHCT 16 memory, the MOD application client 65 is executed.

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FIG. 8A is a display diagram of the MOD title catalog screen 197 showing the available MOD titles for selection by the user. The MOD title catalog screen 197 includes a banner for the name of the title catalog screen 198 at the top portion of the screen 197. The title of the selectable browse by list 199 may be placed below the banner 198. The MOD title catalog server 197 may optionally include an ~~index in~~ indexing label bar 200. The user can sort through the available MOD titles in an area shown as the current ~~browse-by~~ browse-by list 201. The user may navigate the current browse-by title list 201 by manipulating remote 40 (FIG. 7) as instructed by the graphics shown in the navigation information area 203. The navigation information area 203 may typically include images of selection arrows and selection buttons for choosing the desired MOD title from the current browse-by list 201. As yet another non-limiting example, a third option includes a full-screen title description page providing detailed information about a highlighted or selected MOD title. A button bar 209 is included at the bottom of the MOD title catalog screen 197 for providing the user various options including renting the desired MOD title or even exiting the MOD application completely.

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The button bar 209 at the bottom portion of the title catalog screen 197 includes options for the "A," "B," and "C" keys of remote unit 40 (FIG. 7). Continuing with this non-limiting example, pressing the "A" key activates another application known as the service guide (not shown). Depressing the "C" key on the remote unit 40 (FIG. 7), as shown in the button bar 209, takes the user to a current rental screen. Finally, depressing the "B" key brings up a browse-by menu for the user to change the ~~browse-by~~ browse-by list category 199 and this is discussed in more detail below.

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The MOD title catalog screen 197 (FIG. 8A) also allows the user to change the current browse-by list 201 to different catalog groupings. FIG. 9 is a display diagram of the MOD title catalog screen 197 with a browse-by screen 211 overlaid on top of the MOD title catalog screen 197. The browse-by screen 211 appears with choices for sorting all available MOD titles in a category selection portion 212, a plurality of categories of browse-by options. In a description portion 214 of the browse-by screen 211, a brief description is displayed about a highlighted category in the selected category portion 212. The various categories are essentially filters of all the movies shown under individual title category listings in the browse-by screen 211. As non-limiting examples, various browse by catalog categories include all titles, actor, action/adventure, adult, comedy, drama, family, rating, new releases, last chance, specials, among others. Once the user selects a category from the browse-by screen 211, the browse-by screen 211 disappears and the current browse by

list 201 **(FIG. 8A)** displays the new set of MOD titles for the selected category. The user may alternatively exit the browse-by screen 211 without changing the title display by following instructions shown in a bottom portion 216 of the browse-by screen 211.

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Upon addition of a new MOD catalog or title category to the BFS server 28, the new files are immediately broadcast across the network 18 at intermittent intervals enabling the MOD application client 65 on each DHCT 16 to receive the updated information. To notify the MOD application client 65 that new catalog files are available, the MOD application server 19 uses the DSM-CC 34 on the DNCS 23 to send a UDP pass-thru message to the MOD application client 65 via the operating system of the DHCT 16. Each MOD application client, upon determining that a new catalog or an updated version is available, uses the BFS client 43 (FIG. 3) in the DHCT 16 to download the files and store them in the MOD application client 65 database (not shown). The updated version of the files are implemented the next time the user activates the MOD title catalog screen 197. Alternatively, the MOD application client 65 may chose to wait until the user activates the MOD service to load the most recent version of the MOD catalog for display at that time.

Similarly, when new MOD titles are available for sale or release, a system operator adds the MOD titles to the MOD application server 19. The MOD application server 19 (FIG. 2) provides both a graphical user interface (GUI) and an API interface to install a MOD title asset onto the system. Typically this is done by, as a non-limiting example, inserting media such as a tape into the MOD application server 19 and using the graphical user interface (GUI) to define the meta-data about the title, but this process can be automated via the use of APIs (Application Programming Interfaces). The MOD title includes MPEG video assets for the title and optionally a trailer, as well as meta-data about the title. Meta-data includes but is not limited to data about the title, such as it's name, description, rating, directors, actors, length, etc. The MOD application server 19 assigns a unique title ~~ID~~ and ID and installs the added MOD titles to the VOD content server 22 by transferring title ID and MOD title MPEG content. The VOD content manager 21 adds the MPEG content to the VOD content servers 22. The MPEG content for each newly added MOD title may include not only the video (or other media), but may also include MPEG data for a trailer for the MOD title that may be later included on a trailer channel or in the MOD title catalog screen 197 in portion 204a as described above.

The system operator at the headend 11 may configure multiple MOD services to display different MOD title catalog screens 197; as mentioned previously each MOD service includes a URL for the catalog to be used by that service. The different services (and thus catalogs) may be constructed based on demographic information for different types of users according to geographic origin, ethnicity, age, gender, etc. provided such information is known about subscribers in the system. As part of the mapping of MOD services to

channels provided by the SAM server ~~37~~ 38, the operator may assign different MOD services with different catalogs to different geographic hubs in the television network. As a non-limiting example, the MOD title catalog screen 197 may predominately display MOD title categories tailored to Spanish programming, and these MOD title catalog screens 197 may be implemented in geographical areas where the interest in Spanish programming is high. Alternatively, the system operator can create a separate MOD service with a title catalog of adult content separate from the main library of titles. This adult MOD service may then be offered on a separate channel as a premium service to subscribers interested in that content. Thus, different MOD title catalog screens 197 are maintained at the headend 11 for presentation to users of varied interests.

Similarly, the MOD application client 65 on the DHCT 16 may be configured by the user to display MOD title categories in the MOD title catalog screen 197 according to interests for the individual user, if so configured by the system operator. As a non-limiting example, users with interests in sports programming may configure the DHCT 16 to display categories pertaining to sports programming in the MOD title catalog screen 197 as opposed to a regular configuration. When configured via the MOD application server GUI to operate in this mode, a single catalog contains all categories. Thus, the BFS ~~client 43~~ server 28 at headend 11 would continuously broadcast all MOD title catalogs, but the DHCT 16 of the user with interest in sports programming would display the MOD title catalogs and MOD title categories pertaining to sports programming. The DHCT 16 may still download all MOD title categories so the user may still view MOD titles under those categories also, but separate action would be taken to display those categories. The list of categories desired for each individual user can be stored in non-volatile memory (NVM) (not shown) on the DHCT 16 if available. Preferably, the list of categories is transmitted over a UDP/IP socket to the MOD application server 19 by the MOD application client 65 using facilities of the digital television network 18. The MOD application client 65 then requests user information once after it is first initialized, as described previously. A settings graphical user interface offered by the MOD application client 65, if enabled by the system operator in the MOD service parameters, can be accessed by the user to set the list of categories that they desire be displayed. In navigating the MOD title catalog screen 197 to select a MOD title to purchase, the user may opt to preview a MOD title contained in the MOD title catalog screen 197. A preview of a MOD title enables the user to view a portion of the MOD title video stream substantially less than the entire title length. The preview may not necessarily start at the beginning of the MOD title, but rather may be any segment or segments of the MOD title. The portion of video contained in the preview may be configured by the system operator at the headend 11 through an interface (FIG. 22). The interface enables the system operator to set the length and starting point of the preview. The preview is displayed by the MOD application client 65 setting up a session with the VOD content server 22 for the specified title ID starting at the specified Normal Play Time (NPT) location. VOD stream control mechanisms (*i.e.*, fast-forward, rewind, pause) are typically disabled during the preview. Once the user has viewed the entire preview, the user chooses whether

to rent the MOD title just previewed. If not, then the DHCT 16 returns to the MOD title catalog screen for further navigation or exit.

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Once the user purchases a particular MOD title from the rental options screen 227 (FIG. 10) but prior to presentation of the title, the MOD application client 65 determines if the title is blocked by its particular rating, as shown in step 230 (FIG. 5). To determine if a particular MOD title is blocked because of its rating, the user should have previously entered a setting in the DHCT 16 defining what types of ratings would be acceptable for viewing. In the preferred embodiment this information is maintained by the resident navigator application 51 and made available to other application clients via an application programming interface (API). The MOD application client 65 accesses the pre-configured rating parameters for comparison to the rating information contained in the catalog for the subject MOD title being purchased. As a non-limiting example, if a user configured the DHCT 16 to prevent any movie with an "R" rating from being viewed or purchased, the MOD application client 65 would not allow any movie with such rating to be purchased or viewed unless specifically overridden by the user. In this non-limiting example, parents may choose to block MOD titles with "R" ratings to prevent children from accessing the MOD titles while allowing the parents to access the blocked titles upon entry of a proper PIN. Thus, if the MOD application client 65 determines in step 230 that the selected MOD title is blocked by its rating, the application client 65 allows the user to unblock the title on a proper PIN entry, as shown in step 231. In the preferred embodiment, the MOD application client 65 uses the "blocking PIN" number stored in the settings with the navigator 51 application. As such, a user can configure a single parental control PIN that is shared among applications. The user is allowed to escape or cancel from the PIN entry screen for overriding the title blocking according to rating, as shown in step 232. If the user chooses to escape the PIN entry screen or enters an improper or incorrect PIN, as shown in step 233, the MOD application client 65 returns the user to the MOD title catalog screen 197 where the user reinitiates the MOD purchase sequence described above.

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After the user has selected the desired MOD title for purchase, the MOD application client 65 causes the DHCT 16 to present the user ~~an~~ a "please wait" message, as in step 250 (FIG. 6) while the MOD service is being established as described above. FIG. 13 is a display diagram of the please wait barker 253 presented to the user while service is established from the headend 11 to the user's DHCT 16. Establishing service entails setting up a VOD session with the specified VOD content server identified for the title in the catalog.

The barker 253 merely is a pop up window that appears for the duration of the delay that may typically last a few seconds.

-Page 25, lines 3-11

If a session is available for transmitting the MOD title from the VOD content server 22 to the DHCT 16, the user is presented a help screen (actual help screen not shown) with the title purchased, as in step 257, prior to presenting the MOD title on display 31 (**FIG. 3**). This screen may include instructions about how the remote unit 40 (FIG. 7) controls the presentation of the MOD title if such functions (*i.e.*, stop, fast-forward, rewind, pause, etc.) are enabled. Thereafter, MOD application client 65 directs the operating system 46 in the DHCT 16 to tune the MPEG program specified in the session resource, as in step 258 (FIG. 6). The DHCT 16 then presents the user the video associated with the purchase title with additional MOD VOD stream control (*i.e.*, stop, fast-forward, rewind, pause, etc.), as in step 259 (FIG. 6), if the additional support functions are enabled by the chosen rental option.

-Page 26, lines 9-21

As an additional alternative, the user may prematurely end rental of the MOD title prior to expiration of the rental duration by stopping play of the MOD title and choosing an option to terminate the rental. FIG. 16 is a display diagram of the end movie rental screen 264 presented to the user when providing the opportunity to prematurely end rental of a MOD title prior to expiration of the rental duration. If the user selects the "SEL" key 189 on the remote 40 (FIG. 7) as instructed in the end movie rental screen 264, the rental of the selected MOD title is terminated and the user is returned to the MOD title catalog screen 197 (FIG. 5) where the user may opt to exit the MOD application completely. If the user selects the cancel option as provided in the end movie rental screen 264, the user is returned to the presentation of the MOD title. If the user prematurely cancels the rental of the MOD title before a pre-configured time set by a system operator at the headend through a GUI (FIG. 22), the user will not be charged for rental of the MOD title. As a non-limiting example, the user may decide after watching a purchased MOD title for three minutes to cancel the rental. If the pre-configured time to cancel without charge had not expired, the user would not pay for the MOD title rental.

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If upon attempt to initially access the MOD channel, the system operator has defined a conditional access descriptor regulating access to the MOD service, and the navigator application 51 on the DHCT 16

determines that the conditional access package has not been transmitted to the DHCT 16, the navigator 51 will display an unauthorized barker 267 (**FIG. 18**) instead of activating the MOD service.

-Page 29, lines 25-36

If a still image is maintained on the display 31 for a pre-configured amount of time, the MOD application server 65 may invoke a screen saver function to protect the display 31 from a burn in effect that can occur if an image remains on a display too long. The still screen, as a non-limiting example, may be the current rental screen 227 (**FIG. 10**) as described above in regard to the stop and pause functions, or the still screen may be any other image that does not change with time. The system operator at the headend 11 may configure the MOD application to include a screen saver that may be activated after a set time has expired. The screen saver may comprise a sequence of still screens that may be advertisements, announcements or other information capable of display on a still screen. The sequence of still screens may be displayed in a rotation that enables each screen to be displayed for some configurable time period before the next still screen is displayed. FIG. 21 is a diagram of a non-limiting example of a sequence of still screens 287 that may comprise a screen saver operation. In this non-limiting example, a series of still screens 288a-288h rotate in succession.

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Because of the possible limited resources available for MOD title presentation (*i.e.*, bandwidth, number of streams supported by ~~MOD~~ VOD content server 21 (FIG. 2), number of streams per title, number of ~~MOD~~ VOD content servers 21, etc.), the user is typically offered a limited amount of time to view the rented title. This period is described above in regard to the rental options screen 227 (FIG. 10). Rented duration time is typically be longer than the length of the MOD title to allow the user to use the VOD stream control mechanisms described above, but that may not always be the case. As a non-limiting example, the user, via a chosen rental option, may purchase a MOD title to be displayed in its entirety without any interruption generation by the user similar to a conventional movie theater. However, it is more common that the rental period is longer than the MOD title length to enable access to the VOD stream control mechanisms. Different play options enable the user to implement the VOD stream control mechanisms while still having the opportunity to view the MOD title in its entirety.

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If the user tunes to a channel other than the MOD channel that is presenting the purchased MOD title, or if the user powers off the DHCT 16, the stop mode is automatically entered. In one non-limiting example, if the MOD period does not expire before the returns to the MOD channel of the MOD title,

presentation of the MOD title resumes where it was stopped. In another non-limiting example, if the MOD period does expire before the user returns to the MOD channel presenting the MOD title, the MOD title resumes streaming to the DHCT 16 even though the DHCT 16 is tuned to another channel and the user is alerted by a resume barker (not shown) of the MOD title presentation resumption. If, in another non-limiting example, the user returns after expiration of the MOD period, the presentation of the MOD title is resumed at the point in the MOD title such that the MOD title ends at the end of the rental duration thereby causing a middle portion of the MOD title to be unviewed by the user. Regardless of the different embodiments involving the MOD period, if the user returns to the MOD channel after the rental duration has expired, the MOD title catalog screen 197 (**FIG. 8B**) is displayed and no portion of the MOD title is viewed.

-Page 33, lines 15-20

A system operator interface may enable the system operator to configure presentation of promotional information such as movie trailers or previews upon user requests for information about a MOD title. As described above in regard to ~~FIG 8A~~ **FIG. 8A**, the system operator may configure the MOD title catalog display to present an option for the user to view a preview or trailer of the MOD title if the user requests "INFO" about a particular MOD title. The preview or trailer may be configured, through the interface, to appear in a reduced portion of the MOD title catalog screen or in a full screen format.